

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: MacDonald et al.

) Examiner: Ginger T. Chapman

Serial Number: 10/723,761

Group Art Unit: 3761

Filed: November 26, 2003

Customer Number: 22827

Confirmation No.: 9700

Deposit Account: 04-1403

Title: "Odor Control in Personal Care

Products"

)

BRIEF ON APPEAL

Commissioner for Patents Post Office Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Appellants submit the following brief on appeal in accordance with 37 C.F.R. § 41.37:

1. REAL PARTY IN INTEREST

The real party in interest in this matter is the assignee of record, Kimberly-Clark Worldwide, Inc.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellants or the Appellants' legal representative which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

Currently, claims 17, 18, 22-28, and 32 remain pending in the present application including independent claim 17. Claims 1-16, 19-21, 29-31, and 33 were previously cancelled from the present application. All the pending claims are attached hereto in the Claims Appendix.

In the Final Office Action of March 19, 2008, claims 17, 18, 22-28, and 32 were finally rejected under 35 U.S.C. § 103(a).

The rejection of claims 17, 18, 22-28, and 32 is hereby appealed.

4. STATUS OF AMENDMENTS

All amendments have been entered into the record.

5. SUMMARY OF CLAIMED SUBJECT MATTER

In general, the present application is directed to a personal care product that provides odor control. See, e.g., Title. For example, independent claim 17 is directed to a personal care product 2. See, e.g., pg. 1, lines 7-8. The personal care product 2 includes a liquid impervious baffle 12, a liquid pervious liner 14, an absorbent core 16 positioned between the baffle 12 and the liner 14, and an odor sorbent substrate 37 positioned between the baffle 12 and absorbent core 16. See, e.g., pg. 5, lines 3-24; Figs. 1-6. The odor sorbent substrate 37 is wrapped around the absorbent core 16 in a manner than one or more sides are left open. See, e.g., Fig. 6. The substrate 37 has a surface that is coated with a durable activated carbon ink. See, e.g., pg. 4, lines 1-7; pg. 11, line 4 – pg. 17, line 7. The activated carbon ink consists essentially of activated carbon particles and a binder. See, e.g., pg. 2, lines 3-10; pg. 11, lines 5-8.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- I. Claim 1 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- II. Claims 17, 18, and 25-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,939,838 (hereinafter "Fujinami") in view of JP 2002015147 (hereinafter "Onishi et al.").
- III. Claims 28 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over <u>Fujinami</u> in view of <u>Onishi et al.</u> and further in view of U.S. Patent No. 6,740,406 (hereinafter "Hu").
- IV. Claims 22-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over <u>Fujinami</u> in view of <u>Onishi et al.</u> and further in view of U.S. Patent No. 4,565,727 (hereinafter "<u>Giglia</u>").

7. ARGUMENT

Appellants respectfully submit that the presently pending claims are patentable over the cited references.

I. Claim 1 particularly points out and distinctly claims Appellants' invention.

Claim 1 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.¹ It was stated that "[t]he claim recites, 'wrapped around' to

¹ Although claim 1 was rejected in the Office Action, Appellants believe that the Examiner intended to reject independent claim 17 as claim 1 was previously cancelled. As such, Appellants' arguments are directed to independent claim 17.

mean that 'one or more sides of the core are left open'" but "if all sides except one are left open, this reads on 'wrapped' as claimed, but contradicts the meaning of wrapped commonly understood in the art." Page 5, November 18, 2008 Office Action.

The primary purpose of the requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent. MPEP § 2173. A secondary purpose is to provide a clear measure of what applicants regard as the invention so that it can be determined whether the claimed invention meets all the criteria for patentability and whether the specification meets the criteria of 35 U.S.C. 112, first paragraph with respect to the claimed invention. Id.

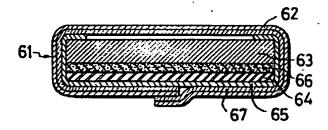
Here, there can be no question that independent claim 17 satisfies the requirements of 35 U.S.C. § 112. As an initial matter, Appellants amended claim 17 in response to the Examiner's own claim interpretation. In the August 22, 2007 Office Action, the Examiner unequivocally states that "in light of the specification and dictionary definition, the terminology 'wrapped around' is considered as covered so that one or more sides are left open." Page 4, August 22, 2007 Office Action. In response to the Examiner's interpretation, Appellants amended claim 17 to further include the limitation that one or more sides remain open. The current Office Action even states that the instant specification "discloses that strips or tissue coated with the ink are placed at the ends of the core, above or below layers of the napkin, around a pledget or absorbent core lengthwise with sides left open." Page 3, November 18, 2008 Office Action. Indeed, the current Office Action also states that "in light of the specification and dictionary definition, the terminology 'wrapped' is interpreted to cover the absorbent

core with one or more sides left open." Id. As such, Appellants are unsure as to how the Examiner interprets claim 17 to be clearly limited to "cover the absorbent core with one or more sides left open" yet also be indefinite.

Furthermore, the specification of the present application clearly supports the definiteness of the claim language. The specification describes an embodiment in which an odor sorbent substrate is "wrapped around the absorbent core pledget" in a manner "leaving the sides of the pledget open." Page 11, lines 16-21. Further, the figures plainly show such an embodiment. Thus, the definiteness of claim language ensures that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent, as required by MPEP § 2173. As such, it is respectfully submitted that the §112 rejection should be withdrawn.

II. Claims 17, 18, and 25-27 are patentable over <u>Fujinami</u> in view of Onishi et al.

<u>Fujinami</u> is directed to a sanitary napkin that includes a material for deodorizing menstrual fluid. One example of the sanitary napkin 61 is shown in Fig. 6, which is reproduced below:



As illustrated, the napkin 61 includes an absorbent layer 63 for absorbing menstrual fluid and a water-proofing layer 64 for preventing the absorbed fluid from permeating through the undersurface of the napkin. A deodorizer is interposed between the

absorbent layer 63 and the water-proofing layer 64. The deodorizer is *contained in* a sheet 66 made of cellulose fiber. <u>Fujinami</u> indicates that the deodorizer may be *mixed* with the cellulose fiber, or *dispersed* into a cotton web, plied body of thin paper, or powdery material made of cellulose fiber. Col. 3, lines 16-34.

Onishi et al. is directed to an absorbent article containing deodorant. Figs. 5 and 6 are reproduced below:

Fig. 5

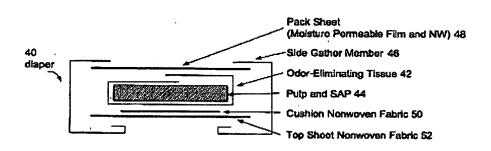
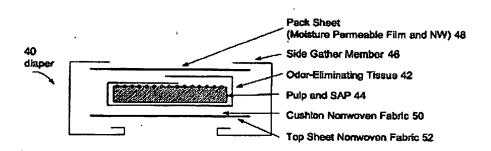


Fig. 6



As illustrated, the absorbent body 44 is completely wrapped with the packaging sheet 42. Para. [0060] of Onishi et al.

A. Independent claim 17 is patentable over <u>Fujinami</u> in view of Onishi et al.

Independent claim 17 contains the limitations that the personal care product comprises:

an odor sorbent substrate positioned between the baffle and absorbent core and wrapped around the absorbent core in a manner that one or more sides are left open, wherein the substrate has a surface that is coated with a durable activated carbon ink, the activated carbon ink consisting essentially of activated carbon particles and a binder.

In comparison to independent claim 17, as previously admitted in the Office Action², Fujinami fails to teach an odor sorbent substrate coated with an activated carbon ink. In the current Office Action, however, it was argued that Fujinami describes a substrate "comprising activated carbon ink." Page 7, November 18, 2008 Office Action. The Office Action otherwise fails to indicate how any of the cited references teach or suggest a coating of durable activated carbon ink as required by the pending claims. Furthermore, with respect to the binder limitation, the Office Action asserts that "the ion exchange resin in the activated carbon ink formulation of Fujinami is considered a binder." Id. Additionally, the Office Action asserts that Fujinami discloses "the claimed invention except for the odor sorbent substrate wrapped around the absorbent core in a manner that more that [sic] one side is wrapped." Id. It was stated that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to wrap the substrate of Fujinami as taught by Onishi." Page 8, November 18, 2008 Office Action.

² Page 3 of the March 19, 2008 Office Action stated that "Fujunami discloses the claimed invention except for the substrate surface is coated with carbon ink."

1. <u>Fujinami</u>, either alone or in any proper combination with Onishi et al. fails to teach or suggest a coating of a durable activated carbon ink.

To establish a *prima facie* case of obviousness, in addition to other requirements, the prior art references, when combined, must teach or suggest all of the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *See also*, MPEP § 2143.03. Independent claim 17 requires an odor sorbent substrate <u>coated with a durable activated carbon ink</u>. Appellants respectfully submit that neither <u>Fujinami</u> nor <u>Onishi et al.</u> discloses or suggests such a limitation.

The Office Action previously argued that "Fujinami teaches the substrate is impregnated with the activated carbon ink, thus the interior surface of the Fujinami substrate is deemed to be coated." Page 3 of the March 19, 2008 Office Action.

However, Fujinami discloses mixing of a deodorizer (so-called activated carbon ink) with cellulose fiber or dispersing into a cotton web. Col. 3, lines 35-46; See also Figs. 2-6 (illustrating uniform dispersion of the deodorizer). In contrast, claim 17 calls for coating the surface of a substrate with a durable activated carbon ink. The present Office Action is completely absent of any discussion whatsoever as to how the substrate of Fujinami is coated.

Indeed, as noted above, independent claim 17 further defines the activated carbon ink as consisting essentially of activated carbon particles and a binder. The Office Action asserts that the ion exchange resin of <u>Fujinami</u> acts as the binder.³ Thus, by the Examiner's reasoning, the odor sorbent substrate (cellulose fibers with 80 to 240 mesh active carbon, active silica, active alumina, and ion exchange resin dispersed

³ This assertion will be addressed infra.

therein) serves to anticipate Appellants' claim limitation of activated carbon ink. Such reasoning may not be sustained.

The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest <u>reasonable</u> construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The broadest <u>reasonable</u> interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Cir. 1999). It is simply not <u>reasonable</u> to assert that the odor sorbent substrate of <u>Fujinami</u> doubles as Appellants' claimed carbon <u>ink</u>, especially "in light of the specification." First, independent claim 17 requires both an odor sorbent substrate <u>and</u> a coating of activated carbon ink thereon. The cellulose fibers with activated carbon powder dispersed throughout of <u>Fujinami</u> can not act to anticipate <u>both</u> limitations. Second, Appellants submit that one skilled in the art could not <u>coat</u> the structure the Examiner has indicated is equivalent to Appellants' activated carbon ink as required by independent claim 17.

In addition, <u>Onishi et al.</u> fails to remedy this deficiency. <u>Onishi et al.</u> explicitly teaches away from use of an activated carbon ink coating. It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).

Onishi et al. states that "[a]ctivated carbon is black so that it most likely reduces the clean feeling and aesthetics of an absorbent article compounded with said deodorant." Page 3, lines 37-38. It is further stated that "when particulate deodorant of

physical absorbent type such as activated carbon remains long in body fluid, moisture enters pores for absorbing offensive odor to reduce the deodorizing function thereof, most likely resulting in weakening the deodorizing effect of absorbent article compounded with said deodorant." Id. at lines 38-41. Thus, <u>Onishi et al.</u> clearly teaches away from combination with <u>Fujinami</u> for purposes of an activated carbon coating.

Furthermore, Onishi et al. teaches away from the present invention. The Federal Circuit has several times expressly addressed the issue of how to evaluate an alleged case of prima facie obviousness to determine whether it has been properly made. For instance, "a prima facie case of obviousness can be rebutted if the applicant can show that the art in any material respect taught away from the claimed invention." *In re Haruna*, 249 F.3d 1327,1335 (Fed. Cir. 2001), citing *In re Geisler*, 116 F.3d 1465, 1469 (Fed. Cir. 1997).

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Furthermore, a "prior art reference must be considered in its entirety, ie., as a whole, including portions that would lead away from the claimed invention." MPEP §2141.02. Here, there can be no question that Onishi et al. teaches away from the claimed durable coating of an activated carbon ink.

As such, no proper combination of the references can yield an odor sorbent substrate coated with a durable activated carbon ink.

2. <u>Fujinami</u> in combination with <u>Onishi et al.</u> fails to teach or suggest an activated carbon ink consisting essentially of activated carbon particles and a binder.

To establish a *prima facie* case of obviousness, in addition to other requirements, the prior art references, when combined, must teach or suggest all of the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *See also*, MPEP § 2143.03. Independent claim 17 requires an activated carbon ink <u>consisting</u> essentially of activated carbon particles and a binder. Appellants respectfully submit that neither <u>Fujinami</u> nor <u>Onishi et al.</u> discloses or suggests such a limitation.

The Examiner asserts that "the ion exchange resin in the activated carbon ink formulation of Fujinami is considered a binder." Page 7, November 18, 2008 Office Action. First, as noted above, claim 17 contains the limitations of an odor sorbent substrate and the substrate being coated with a durable activated carbon ink, the ink consisting essentially of activated carbon particles and a binder. Fujinami describes that the odor sorbent substrate is made up of cellulose fibers having 80 to 240 mesh active carbon, active silica, active alumina, and ion exchange resin dispersed therein. Thus, there is simply no teaching or suggestion of an activated carbon ink **consisting essentially of** activated carbon particles and a binder.

The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps and those that do not materially affect the basic and novel characteristics of the claimed invention. MPEP § 2111.03. Here, however, Fujinami expressly states that the "[m]ost important characteristic" of the invention described therein is the deodorant which is includes active carbon, active silica, active alumina, and ion exchange resin interspersed in sheets of cellulose fiber. Col. 3, lines

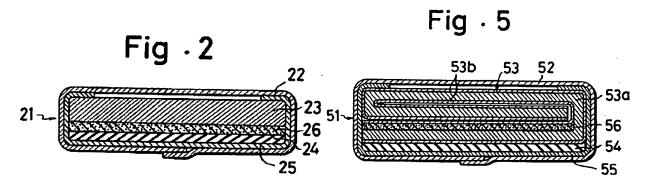
16-34. Therefore, <u>Fujinami</u> cannot be said to teach or suggest an activated carbon ink **consisting essentially of** activated carbon particles and a binder.

Additionally, as noted above, <u>Fujinami</u> does not teach or suggest <u>binding</u> anything to a surface as <u>Fujinami</u> teaches <u>containing</u> the deodorant composition described therein <u>within</u> the cellulose fiber sheets. Furthermore, as discussed above, <u>Onishi et al.</u> clearly teaches away from combination with <u>Fujinami</u> for purposes of an activated carbon coating as well as from the present invention. As such, no proper combination of the references can yield an odor sorbent substrate coated with a durable activated carbon ink <u>consisting essentially of activated carbon particles and a binder</u>.

3. <u>Fujinami</u> in combination with <u>Onishi et al.</u> fails to teach or suggest an odor sorbent substrate wrapped around an absorbent core.

To establish a *prima facie* case of obviousness, in addition to other requirements, the prior art references, when combined, must teach or suggest all of the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *See also*, MPEP § 2143.03. Independent claim 17 requires an odor sorbent substrate positioned between the baffle and the liner and <u>wrapped around</u> the absorbent core in a manner that one or more sides are left open. Appellants respectfully submit that neither <u>Fujinami</u> nor <u>Onishi et al.</u> discloses or suggests such a limitation.

In this regard, Figs. 2 and 5 of Fujinami are instructive:



In Fig. 2, the deodorizer containing sheet 26 is positioned between the water proofing layer 24 and the absorbent layer 23. In Fig. 5, the deodorizing containing sheet 56 appears to be positioned between a spirally folded covering web 53a and a thin sheet 53b that provides elasticity in the direction of thickness. Fig. 5 does not illustrate an odor sorbent substrate wrapped around an absorbent core in a manner that one or more sides are left open. For instance, one embodiment of this claim limitation is illustrated in Appellants' Fig. 6 reproduced below:

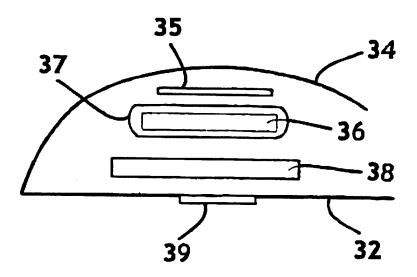


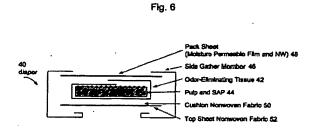
FIG. 6

As illustrated, the odor sorbent substrate **37** is <u>wrapped around</u> the absorbent core **36** in a manner that one or more sides are left open. Contrasting with Fig. 5 of <u>Fujinami</u>, it is readily apparent that there is <u>no</u> **wrapping around** of the absorbent core. If anything, Fig. 5 of <u>Fujinami</u> appears to depict the exact opposite of Appellants' claim language; i.e., the absorbent layer 53 appears to encompass the deodorizer containing sheet 56. The deodorizer containing sheet 56 is certainly not <u>wrapped around</u> anything.

Furthermore, Onishi et al. also fails to teach or suggest an odor sorbent substrate wrapped around an absorbent core in a manner that one or more sides are left open. In this regard, the Examiner argues that "Onishi teaches, at [0038-9] that an odor sorbent substrate can be placed in many configurations along and around the sides of an absorbent core" and that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to wrap the substrate of Fujinami as taught by Onishi." Page 8, November 18, 2008 Office Action.

However, with reference to the figures described in the paragraphs cited in the Office Action, Onishi et al. clearly indicates that absorbent body 44 is completely wrapped with packaging sheet 42 (so-called odor sorbent substrate). Para. [0060]. Figs. 5 and 6 are reproduced below:

Pack Sheet
(Moisture Permeable Film and NW) 48
40
diaper
Odor-Eliminating Tissus 42
Putp and SAP 44
Cushion Norwoven Fabric 50
Top Shoot Norwoven Fabric 52



As illustrated, the absorbent body 44 is completely wrapped with the packaging sheet 42. Para. [0060]. It was stated that "absorbent body 44 is wrapped with the above-described packaging sheet 42" and that the top, bottom, and "both sides of the absorbent body 44" are "wrapped in the above-described deodorizing packaging sheet 42." Id.

Furthermore, the portion of <u>Onishi et al.</u> cited in the Office Action (Paras. [0038]- [0039]) further supports this view in that it further illustrates that the sheet 42 is either placed completely around the absorbent body 44 or in another location altogether.

Appellants urge that all words in the claim language must be considered to establish a *prima facie* case of obviousness. Indeed the Courts have held that "all words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970). Thus, the Examiner has not established a *prima facie* case of obviousness as none of the references disclose or suggest an odor sorbent substrate <u>wrapped around</u> an absorbent core in a manner that one or more sides are left open.

4. There is no motivation to combine <u>Fujinami</u> with <u>Onishi</u> et al.

As indicated above, <u>Fujinami</u> is directed to an article for treating menstrual fluid. The article contains a deodorizer which may be active carbon. Col. 3, lines 35-43.

Furthermore, <u>Fujinami</u> teaches that the active carbon deodorizer may be contained in sheets made of cellulose fiber interposed between the respective absorbent layers, in the water-proofing layer, or in the absorbent layer. Col. 3, lines 16-35. However, <u>Onishi et al.</u> expressly teaches away from utilization of active carbon as a deodorant composition. <u>Onishi et al.</u> states that "[a]ctivated carbon is black so that it most likely reduces the clean feeling and aesthetics of an absorbent article compounded with said deodorant." Page 3, lines 37-38. It is further stated that "when particulate deodorant of physical absorbent type such as activated carbon remains long in body fluid, moisture enters pores for absorbing offensive odor to reduce the deodorizing function thereof, most likely resulting in weakening the deodorizing effect of absorbent article compounded with said deodorant." Id. at lines 38-41. Thus, <u>Onishi et al.</u> clearly teaches away from combination with Fujinami.

Appellants respectfully submit that there is no motivation to combine the <u>Fujinami</u> et al. with <u>Onishi et al</u>. Plainly, the Examiner's only incentive or motivation for so modifying <u>Fujinami</u> using the teachings of <u>Onishi et al</u>. in the manner suggested in the Office Action results from using Appellant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103. The U.S. Supreme Court recently reaffirmed that "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon ex post reasoning." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727; *See also*, *Graham v. John Deere Co.*, 383 U.S. at 36. Only with Appellants' specification could the structure of claim 17 be attained, and any attempt to arrive at the

structure of claim 17 through study of the cited references is only reachable from improper hindsight analysis after viewing Applicants' specification.

B. Claims 18 and 25-27 are patentable over <u>Fujinami</u> in view of <u>Onishi et al</u>.

If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Claims 18 and 25-27 depend from independent claim 17. As such, Appellants submit that claims 18 and 25-27 are patentable over the cited reference for at least the reasons noted above with respect to independent claim 17.

III. Claims 28 and 32 are patentable over <u>Fujinami</u> in view of <u>Onishi et al</u> and further in view of <u>Hu</u>.

If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Claims 28 and 32 depend from independent claim 17. <u>Hu</u> fails to remedy the deficiencies of <u>Fujinami</u> and <u>Onishi et al.</u> as noted above with respect to independent claim 17. As such, Appellants submit that claims 28 and 32 are patentable over the cited references for at least the reasons noted above with respect to independent claim 17.

IV. Claims 22-24 are patentable over <u>Fujinami</u> in view of <u>Onishi et al.</u> and further in view of <u>Giglia</u>.

If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Claims 22-24 depend from independent claim 17. <u>Giglia</u> fails to remedy the deficiencies of <u>Fujinami</u> and <u>Onishi et al.</u> as noted above with respect to independent claim 17. As such, Appellants submit that claims 22-24 are patentable over the cited references for at least the reasons noted above with respect to independent claim 17.

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In conclusion, Appellants request favorable action and allowance of the presently pending claims.

Respectfully requested,

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April 16, 2009 Date

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8. CLAIMS APPENDIX

- 1-16. (Cancelled)
- 17. (Rejected) A personal care product comprising:
- a liquid impervious baffle;
- a liquid pervious liner;

an absorbent core positioned between the baffle and the liner; and

an odor sorbent substrate positioned between the baffle and absorbent core and wrapped around the absorbent core in a manner that one or more sides are left open, wherein the substrate has a surface that is coated with a durable activated carbon ink, the activated carbon ink consisting essentially of activated carbon particles and a binder.

- 18. (Rejected) The personal care product of claim 17, wherein the personal care product is selected from the group consisting of diapers, training pants, absorbent underpants, adult incontinence products, and feminine hygiene products.
 - 19-21. (Cancelled)
- 22. (Rejected) The personal care product of claim 17, wherein the activated carbon particles are present in an amount of between about 2 and 80 wt.% of the substrate on a dry basis.
- 23. (Rejected) The personal care product of claim 17, wherein the activated carbon particles are present in an amount of between about 5 and 75 wt.% of the substrate on a dry basis.

- 24. (Rejected) The personal care product of claim 17, wherein the activated carbon particles are present in an amount of between about 10 and 30 wt.% of the substrate on a dry basis.
- 25. (Rejected) The personal care product of claim 17, wherein the substrate contains a film, nonwoven web, coform web, airlaid paper web, wetlaid paper web, or a combination thereof.
- 26. (Rejected) The personal care product of claim 17, wherein the substrate contains a wetlaid or airlaid paper web.
- 27. (Rejected) The personal care product of claim 17, wherein the substrate contains a film.
- 28. (Rejected) The personal care product of claim 17, wherein the binder is a styrene-acrylic binder.
 - 29-31. (Cancelled)
- 32. (Rejected) The personal care product of claim 17, wherein the ink is applied to the substrate as an aqueous solution.
 - 33. (Cancelled)

9. **EVIDENCE APPENDIX**

None

10. RELATED PROCEEDINGS APPENDIX

None